

NWS FORM E-5 <small>(11-88)</small> <small>(PRES. by NWS Instruction 10-924)</small>	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) WFO Jackson, Mississippi
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH YEAR January 2015
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE DATE 02/25/2015

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

☐ An X inside this box indicates that no river flooding occurred within this hydrologic service area.

Synopsis...

This January was a pretty average month temperature-wise. All ASOS's (Automated Surface Observing Stations) averaged within one degree of normal, erring on the cooler side however. For precipitation, the most northwest ASOS station in Greenville received more than 2 inches of rainfall below average. The ASOS in Meridian received more than an inch of rainfall above average. All other stations were within average amounts.

The month and new year started off with a high pressure dominating over the Southeast U.S. A low pressure system formed quickly in the Northwest Gulf of Mexico on the 2nd. The low pushed on shore in South Louisiana and dropped a good deal of rain over the HSA. A portion of the area received up to 1.5 inches of rain with the majority of the HSA receiving at least a half inch. A cold front then passed through on the 4th and dropped, in some places, more than 3 inches of rain. This time though the majority of the area received at least one inch of rainfall. A few of the HSA's rivers were pushed into minor flood categories due to this series of weather events.

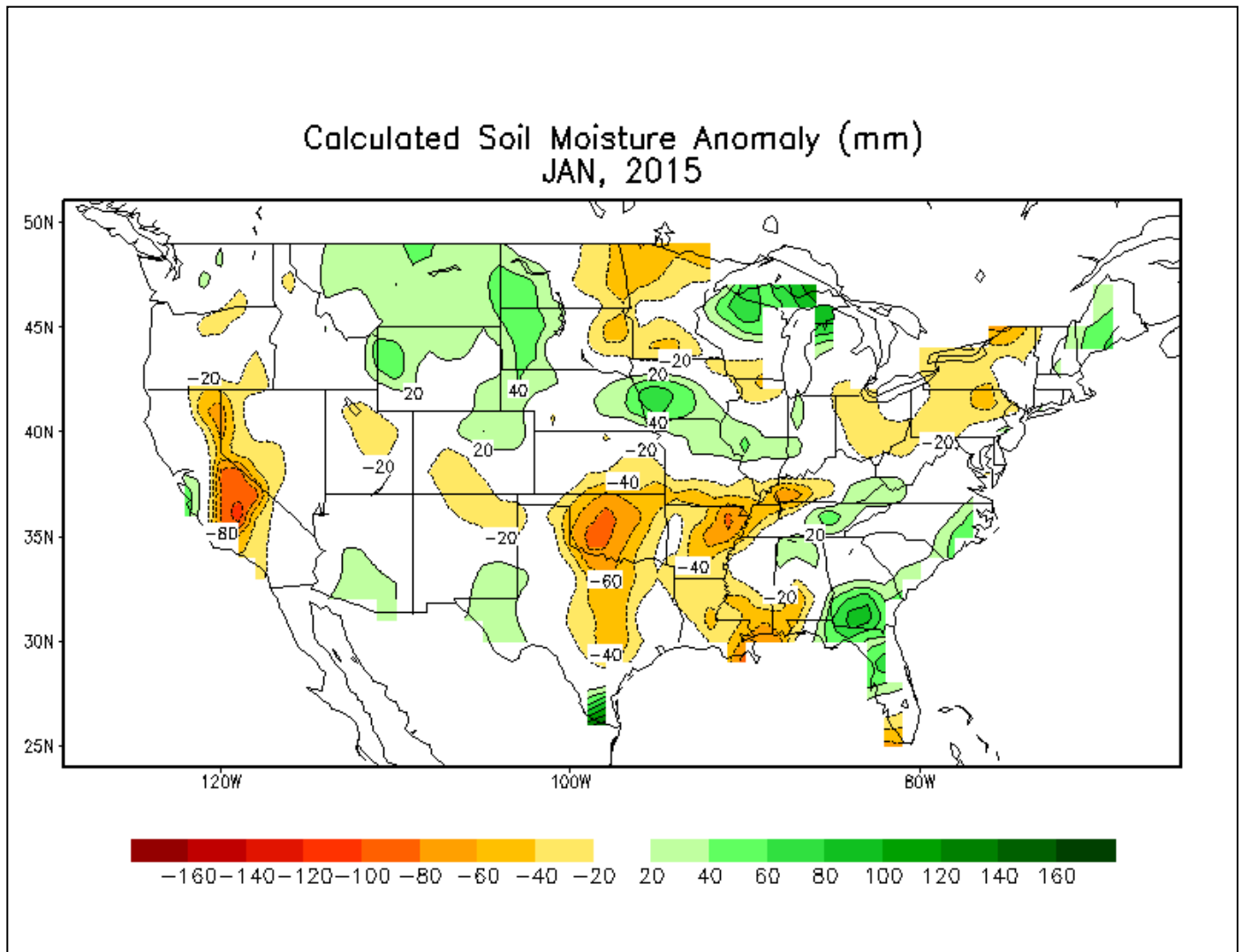
High pressure settled into the Southeast U.S. for a week or so and brought some of the coldest temperatures of the season to the HSA. Another front pushed through on the 12th. This time only minor rainfall amounts were recorded (0.10 inches-0.25 inches) on the 12th and 13th with the greatest amounts in Northeast Louisiana (0.75 inches-1 inch).

Dry air rushed in behind this system and high pressure settled in for a few days. A large cold front dove down and drove through the HSA on the 18th but brought zero rainfall due to the depth and extent of the dry atmosphere overhead. The next system with precipitation came on the 23rd as cyclogenesis occurred and a low pressure system formed over South Texas. This low pressure moved northeast along the Gulf Coast and, with all the moisture enveloped into the system, 2+ inches of rain fell in Southeast Mississippi. Widespread over the HSA, more than 1 inch was recorded.

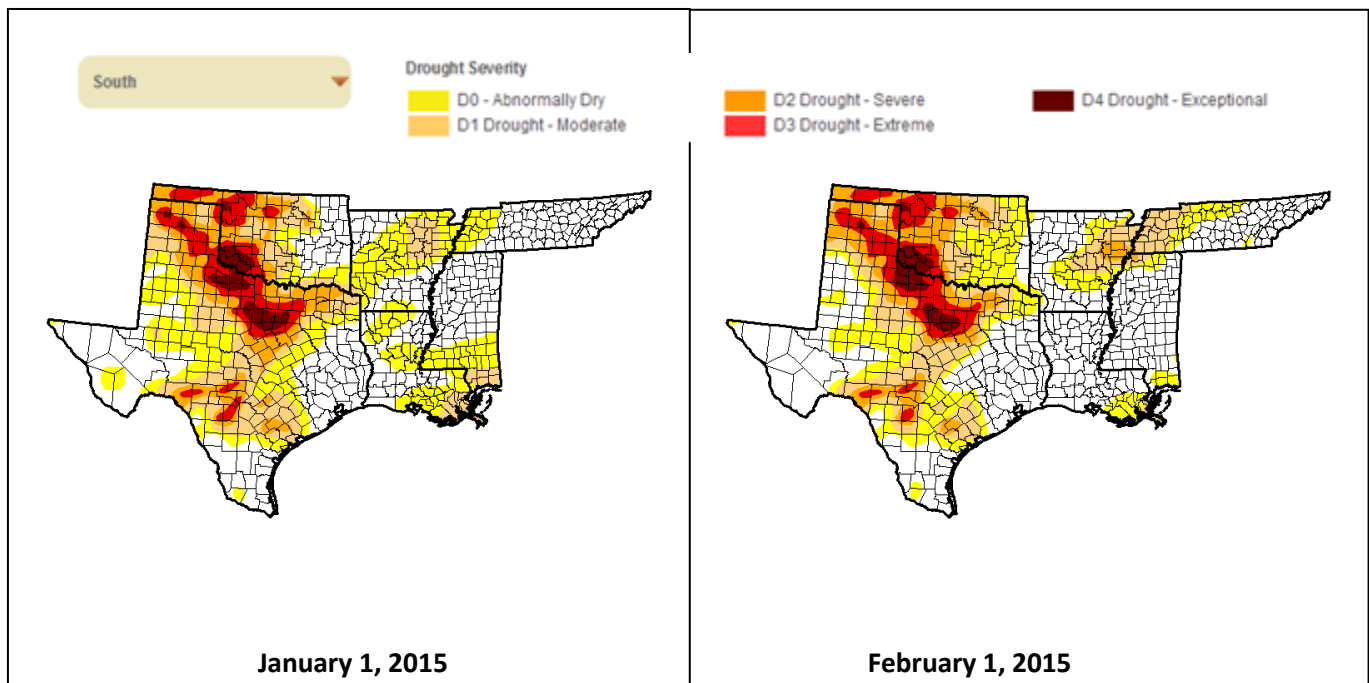
That was the last rain-making system to occur this month. High pressure settled in until the 29th when a cold front pushed through the South. Again, the dry air in place was so deep that no precipitation was produced as the front traveled through.

River and Soil Conditions...

Soil Moisture Map:

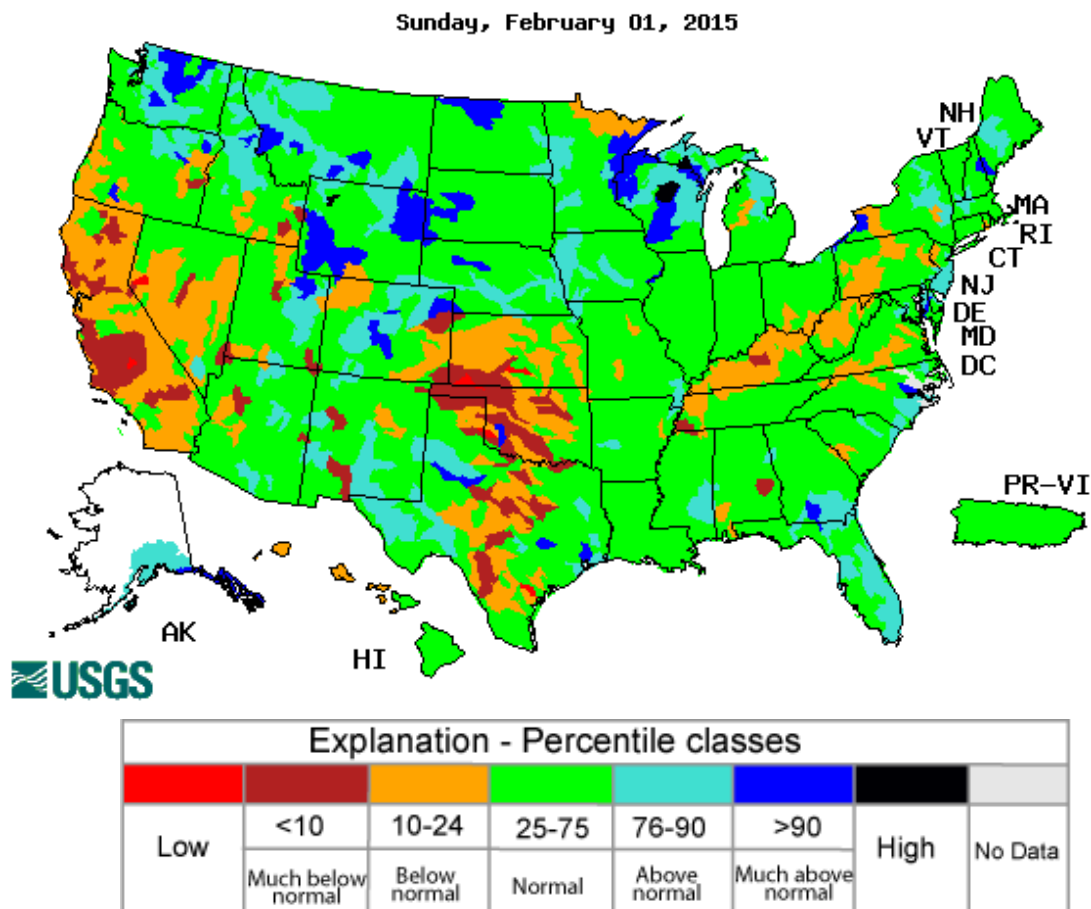


Drought Comparison:



Streamflow:

The United States Geological Survey's (USGS) January 2015 river streamflow records were compared with all historical January streamflow records. The average streamflow for January was normal for all basins within the HSA except the Pascagoula River Basin in southeast Mississippi. This basin averaged above normal streamflow.

**River Conditions:**

Flooding occurred after a heavy rainfall early on in the month. The Big Black River reached minor flood stage at Bovina and Bentonina for a few days along with the Pearl River at Philadelphia, Tibbee Creek at Tibbee, and the Chickasawhay River at Enterprise, and Noxubee River at Macon. Heavy rainfall in early part of the month across Jasper County caused the Tallahala Creek at Laurel to exceed moderate flood stage. For the conditions of the Mississippi River from Arkansas City to Natchez, refer to the hydrographs on the next page.

Climatic Outlook and Flood Potential:

The climatic outlook predicts below normal temperatures over the next three months for the entire HSA. In regards to precipitation, the outlook shows equal chances for above and below normal precipitation amounts over the next three months for the entire HSA. Thus, based on current soil moisture, streamflow, and the 3-month weather outlook, the flood potentials are as follows:

Pearl River System: Average.

Yazoo River System: Average.

Big Black River System: Average.

Homochitto River System: Average.

Pascagoula River System: Average.

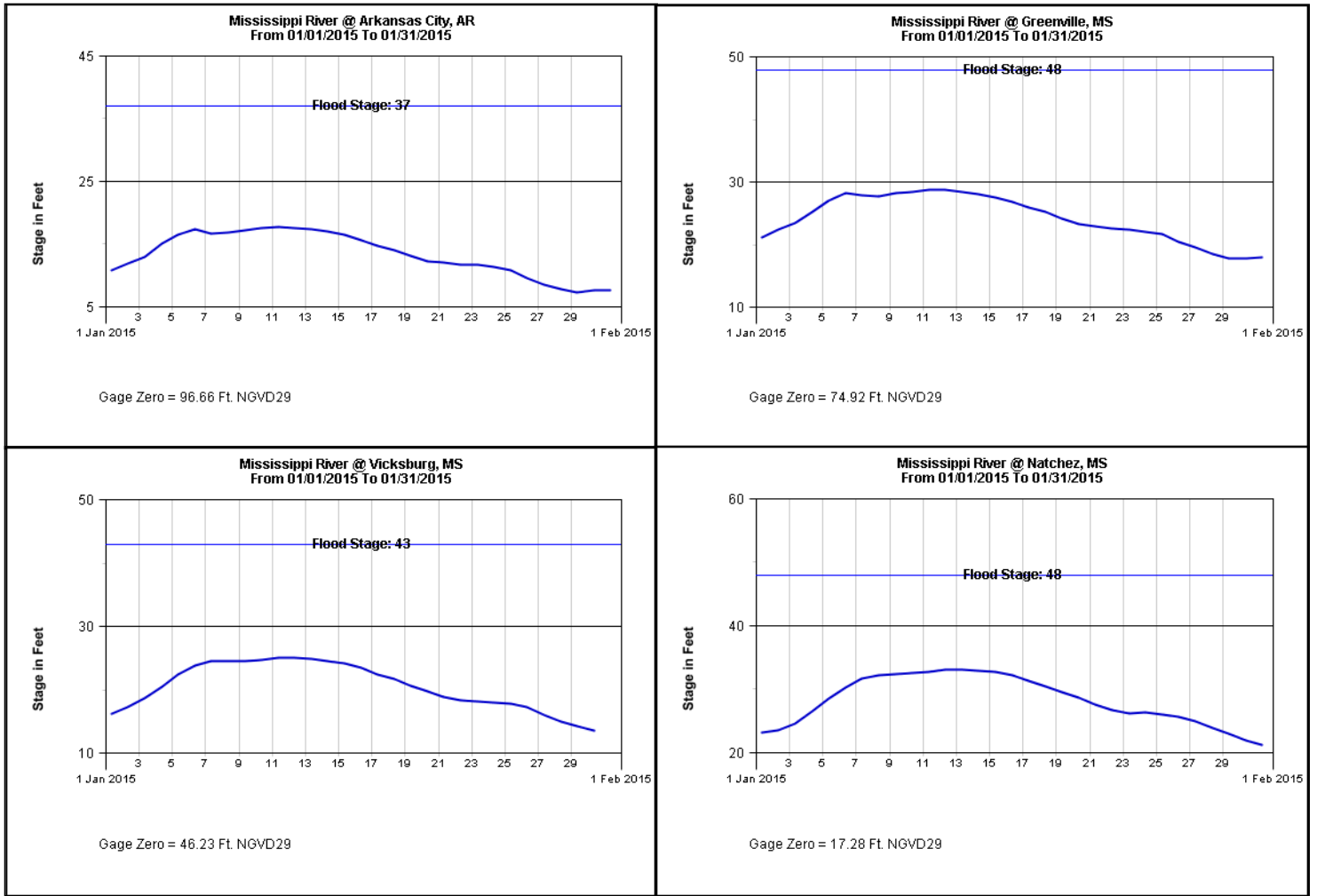
Northeast LA and Southeast AR: Average.

Tombigbee River System: Average.

Mississippi River: Average.

Mississippi River Plots January 2015

Plots Courtesy of the United States Army Corps of Engineers



Monthly Preliminary High and Low Stages:

Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	17.73	1/11	7.27	1/29
Greenville	48	28.91	1/12	17.83	1/30
Vicksburg	43	25.18	1/12	13.57	1/31
Natchez	48	33.06	1/13	21.25	1/31

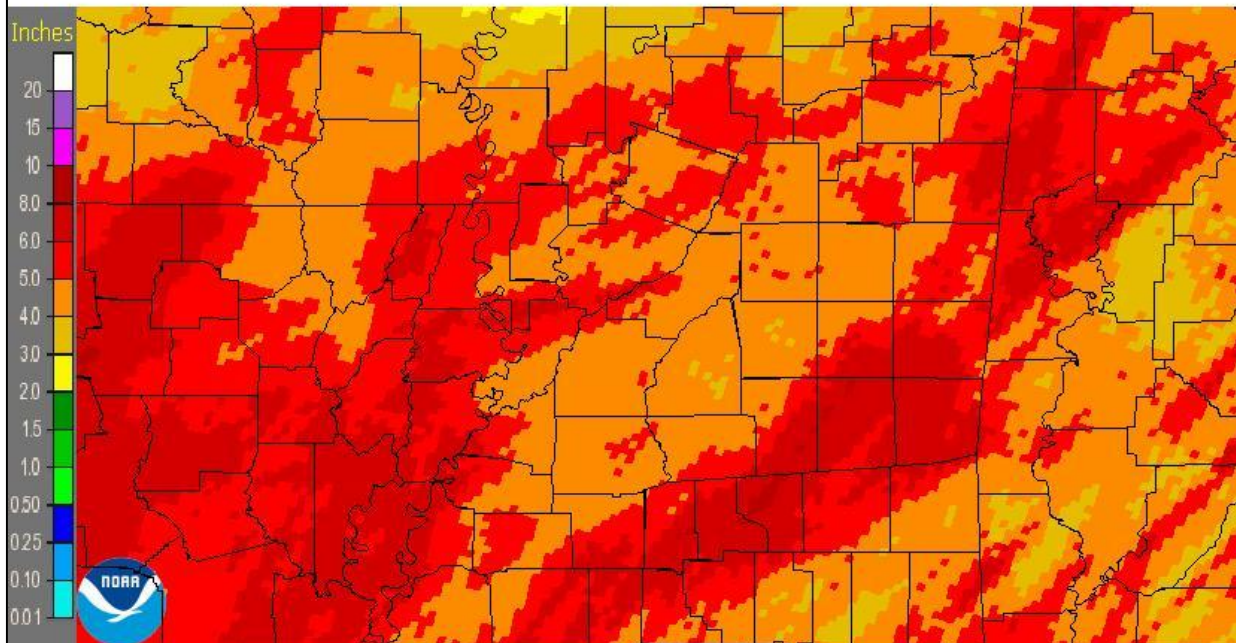
Rainfall for the Month of January:

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on December 31st until 7 am on January 31st were:

7.55 inches at Bay Springs, MS; 7.20 inches at Collins, MS; 6.67 inches at Canton, MS; 6.46 inches at Pat Harrison Waterway's Dry Creek Water Park, MS; 6.44 inches at Crawford, MS; 6.39 inches at Crossett, AR; 6.34 inches at Jonesville, LA; 6.21 inches at St. Joseph, LA; 6.15 inches at Tipton, MS; 6.09 inches at Columbus, MS; 6.07 inches at the Newton Agricultural Experiment Station and Macon, MS; and 6.04 inches at Prentiss, MS.

January Rainfall Estimates:

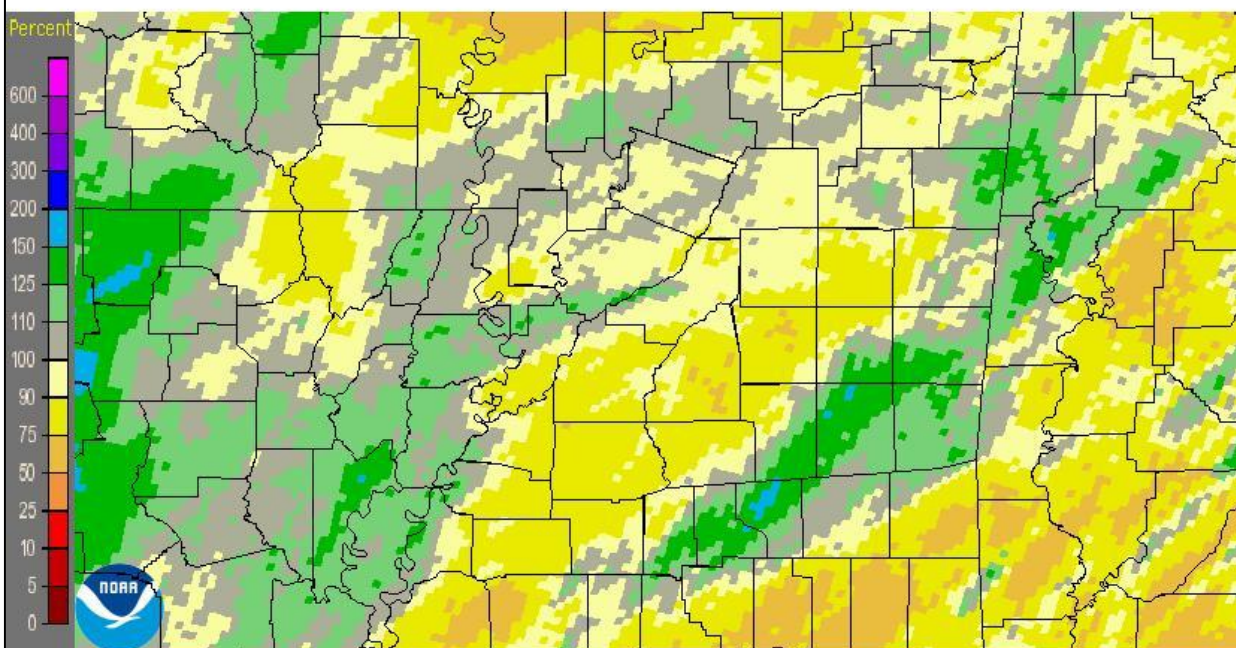
Jackson, MS (JAN): January, 2015 Monthly Observed Precipitation
Valid at 2/1/2015 1200 UTC- Created 2/3/15 22:03 UTC



Note: Observer rainfall and MPE may differ due to time differences.

January Percent of Normal Precipitation:

Jackson, MS (JAN): January, 2015 Monthly Percent of Normal Precipitation
Valid at 2/1/2015 1200 UTC- Created 2/3/15 22:04 UTC



Note: Observer rainfall and MPE may differ due to time differences.

January Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2015 Rainfall	2015 Departure from Normal
Jackson (KJAN)	4.72	-0.25	4.72	-0.25
Meridian (KMEI)	6.71	+1.58	6.71	+1.58
Greenville (KGLH)	2.59	-2.38	2.59	-2.38
Greenwood (KGWO)	4.44	-0.08	4.44	-0.08
Hattiesburg (KHBG)	5.35	-0.39	5.35	-0.39
Vicksburg (KTVR)	5.57	+0.50	5.57	+0.50

Total Flood Warning products issued: 12

Total Flood Statement products issued: 59

Total Flood Advisories MS River: 0

Daily Climate and Ag WX Products (AGO'S) issued: 31

Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31

Daily River and Lake Summary Products (RVD'S) issued: 31

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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District